

We claim:

1. An extrudable powder blend composition comprising:

- (a) from 30 to 65 weight percent of at least one chlorinated vinyl resin;
- (b) from 0.25 to 5 weight percent of at least one thermal stabilizer;
- (c) from 1.5 to 5 weight percent of at least one lubricant;
- (d) from 3.5 to 15 weight percent of at least one high polymer processing aid; and
- (e) from 24 to 65 weight percent of at least one cellulosic material.

2. The composition according to claim 1 further comprising up to 5 weight percent of at least one blowing agent.

3. The composition according to claim 1 further comprising up to 20 weight percent of at least one mineral filler.

4. The composition according to claim 1 further comprising up to 15 weight percent of at least one impact modifier.

5. The composition according to claim 1 wherein the (a) at least one chlorinated vinyl resin is PVC.

6. The composition of claim 1 wherein the (d) at least one cellulosic material is wood flour.

7. An extrudable free-flowing powder blend composition comprising:

- (a) from 40 to 55 weight percent of at least one PVC resin;
- (b) from 0.5 to 1.5 weight percent of at least one thermal stabilizer;
- (c) from 1.5 to 3 weight percent of at least one lubricant;
- (d) from 5 to 10 weight percent of at least one high polymer processing aid;
- (e) from 34 to 52 weight percent of at least one wood flour;

8. The composition of claim 7 further comprising up to 10 weight percent of at least one impact modifier. 1. 10

WD

10. A process for preparing an extrudable powder blend comprising the steps of:

- (a) from 30 to 65 weight percent of at least one chlorinated vinyl resin;

- (b) from 0.25 to 5 weight percent of at least one thermal stabilizer;

- (c) from 1.5 to 5 weight percent of at least one lubricant;

- (d) from 3.5 to 15 weight percent of at least one high polymer processing aid; and

- (e) from 24 to 65 weight percent of at least one cellulosic material containing moisture;

- (II) raising the temperature above 50°C during the (I) blending step; and

- (III) removing water vapor.

11. The process according to claim 10 wherein the total amount of moisture in the extrudable powder blend after step (III) is below three weight percent.

12. The process according to claim 11 wherein the (a) at least one chlorinated vinyl resin and the (e) at least one cellulosic material are first blended at a temperature above 80°C before adding the (c) at least one lubricant.

13. A process for preparing an extrudable free-flowing powder blend comprising the steps of:

- (I) blending a mixture comprising the following components:

- (a) from 40 to 55 weight percent of at least one PVC resin;
- (b) from 0.5 to 1.5 weight percent of at least one thermal stabilizer;
- (c) from 1.5 to 3 weight percent of at least one lubricant;
- (d) from 5 to 10 weight percent of at least one high polymer processing aid;
- (e) from 34 to 52 weight percent of at least one wood flour containing moisture;
- (f) from 3 to 15 weight percent of at least one mineral filler; and
- (g) up to 3 weight percent of at least one blowing agent;

(II) raising the temperature above 80°C during the (I) blending step; and
 (III) removing water vapor so that the final moisture amount in of the powder blend is below 2.0 weight percent.

14. The process according to claim 13 wherein the (a) at least one PVC resin and the (e) at least one wood flour are first blended at a temperature above 80°C before adding the (c) at least one lubricant.
15. The process according to claim 13 wherein the final moisture content is below one weight percent.
16. The process according to claim 13 wherein the mixture further comprises up to 15 weight percent of at least one impact modifier.
17. The process according to claim 13 wherein the total amount of water added during the addition of components (a) through (f) is less than or equal to 25 weight percent.
18. The process according to claim 17 wherein at least one of the components (a) through (f) is supplied as a water-based dispersion.
19. A process for preparing a foamed extrudate comprising the steps of:

- 5
SUB
C37
- (I) feeding an extrudable free-flowing powder blend comprising at least one blowing agent into an extruder;
 - (II) melting the powder blend to form a melt;
 - (III) extruding the melt from a die to form an expanding extrudate having at least one surface;
 - (IV) hardening the surface of the expanding extrudate with a cooling fluid to increase the expansion ratio.

10 20. The process according to claim 19 wherein the cooling fluid is a gas directed away from the die surface and towards the surface of the extrudate.

15 21. A composite comprising a substrate layer comprising an extrudable thermoplastic resin, and at least one capstock layer disposed thereon, the at least one capstock layer comprising an extrudable free-flowing powder blend composition comprising:

- (a) from 40 to 55 weight percent of at least one PVC resin;
- (b) from 0.5 to 1.5 weight percent of at least one thermal stabilizer;
- (c) from 1.5 to 3 weight percent of at least one lubricant;
- (d) from 5 to 10 weight percent of at least one high polymer processing aid;
- (e) from 34 to 52 weight percent of at least one wood flour;
- (f) from 3 to 15 weight percent of at least one mineral filler; and
- (g) up to 3 weight percent of at least one blowing agent.

20

25 22. The composite according to claim 21 wherein the capstock layer is stained.

23. The composite according to claim 21 wherein the composite is thermoformed.